

We claim:

1. An aqueous, buffered, fluoride containing composition, comprising;

A. fluoroboric acid or a fluoride containing compound of the general formula R_4NF , where R_1 through R_4 are independently, hydrogen, an alcohol group, an alkoxy group or an alkyl group, and

B. a buffer,

wherein the aqueous, buffered, fluoride containing composition has a pH greater than 7.0 to about 11.0.

2. The aqueous, buffered, fluoride containing composition as claimed in Claim 1, wherein the fluoride containing compound is ammonium fluoride, tetramethyl ammonium fluoride or tetraethyl ammonium fluoride.

3. The aqueous, buffered, fluoride containing composition as claimed in Claim 1, wherein the fluoride containing compound is ammonium fluoride.

4. The aqueous, buffered, fluoride containing composition as claimed in Claim 1, further comprising an organic, polar solvent miscible in water.

5. The aqueous, buffered, fluoride containing composition of Claim 4, where the organic polar solvent miscible in water is an amine, a sulfoxide, a sulfone, an amide, a lactone, a pyrrolidone, an imidazolidinone, a glycol, a glycol ether and mixtures thereof.

6. The aqueous, buffered, fluoride containing composition of Claim 4, wherein the organic polar solvent miscible in water is dimethylacetamide.

7. The aqueous, buffered, fluoride containing composition of Claim 4, wherein the organic polar solvent is N-methylpyrrolidone.

8. The aqueous, buffered, fluoride containing composition of Claim 1, wherein the buffer comprises a weak acid or protonated base and a base selected from the group consisting of an amine, ammonia, ammonium hydroxide and an alkyl ammonium hydroxide.

5

9. The aqueous, buffered, fluoride containing composition of Claim 1, wherein the weak acid is HEPES, benzotriazole or vanillin.

10. The aqueous, buffered, fluoride containing composition of Claim 1 further comprising a corrosion inhibitor present in amounts up to 20% by weight.

11. The aqueous, buffered, fluoride containing composition of Claim 1, wherein the pH is from greater than 7.0 to about 9.0.

12. The aqueous, buffered, fluoride containing composition of Claim 1, wherein the pH is from greater than 7.0 to about 8.4.

13. An aqueous, buffered fluoride containing composition, comprising;

A. from 0.1% by weight to 20% by weight of fluoroboric acid or a fluoride containing compound of the general formula R_4NF , where R_1 through R_4 are independently hydrogen, an alcohol group or an alkyl group,

B. up to 70% by weight of an organic polar solvent, miscible in water,

C. a buffer, and

D. from 1% by weight to 92% by weight water,

wherein the aqueous, buffered, fluoride containing composition has a pH greater than 7.0 to about 11.0.

14. The aqueous, buffered, fluoride containing composition of Claim 13, wherein the water is present in amounts from 1% by weight to 70% by weight.

15. A method of stabilizing oxide and metallic etch rates of aqueous, fluoride containing composition, comprising; a fluoride containing compound of the general formula R_4NF where R_1 through R_4 are independently hydrogen, an alcohol group, an alkoxy group or an alkyl group, or fluoroboric acid; and an organic polar solvent, where the pH of the aqueous fluoride containing composition is adjusted to a pH of greater than 7.0 to about 11.0 and a buffer is added to the composition.